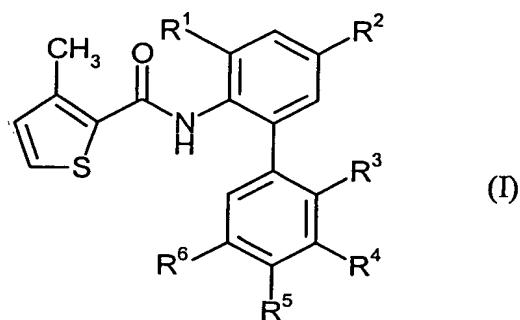


Patent Claims

1. Methylthiophenecarboxanilides of the formula (I)



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in which

R^1 and R^2 are identical or different and independently of one another represent hydrogen or fluorine,

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R^3 , R^4 and R^6 are identical or different and independently of one another represent hydrogen, halogen, C_1 - C_6 -alkyl or C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms,

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R^5 represents hydrogen, halogen, cyano, nitro, C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, C_3 - C_6 -cycloalkyl, C_1 - C_4 -alkoxy, C_1 - C_4 -alkylthio, C_1 - C_4 -alkylsulfonyl, C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms, C_1 - C_4 -haloalkoxy having 1 to 5 halogen atoms, C_1 - C_4 -haloalkylthio having 1 to 5 halogen atoms or C_1 - C_4 -haloalkylsulfonyl having 1 to 5 halogen atoms,

where R^3 , R^4 , R^5 and R^6 do not simultaneously represent hydrogen.

20

2. Methylthiophenecarboxanilides of the formula (I) according to Claim 1 in which

R^1 and R^2 are identical or different and independently of one another represent hydrogen or fluorine,

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R^3 , R^4 and R^6 are identical or different and independently of one another represent hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl,

n- or i-propyl, n-, i-, s- or t-butyl, trifluoromethyl, trichloromethyl or trifluoroethyl,

R⁵ represents hydrogen, fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, cyclopropyl, methoxy, ethoxy, methylthio, ethylthio, n- or i-propylthio, trifluoromethyl, trichloromethyl, trifluoroethyl, difluoromethoxy, trifluoromethoxy, difluorochloromethoxy, trifluoroethoxy, difluoromethylthio, difluorochloromethylthio or trifluoromethylthio,

R⁵ furthermore represents iodine,

where R³, R⁴, R⁵ and R⁶ do not simultaneously represent hydrogen.

3. Methylthiophenecarboxanilides of the formula (I) according to Claim 1 in which

R¹ and R² are identical or different and independently of one another represent hydrogen or fluorine,

R³, R⁴ and R⁶ are identical or different and independently of one another represent hydrogen, fluorine, chlorine, bromine, iodine, methyl or trifluoromethyl,

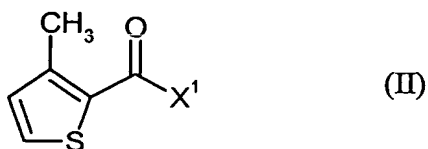
R⁵ represents hydrogen, fluorine, chlorine, bromine, methyl, cyclopropyl, methoxy, methylthio, trifluoromethyl, trichloromethyl, trifluoroethyl, difluoromethoxy, trifluoromethoxy, difluorochloromethoxy, trifluoroethoxy, difluoromethylthio, difluorochloromethylthio or trifluoromethylthio,

R⁵ furthermore represents iodine or cyano,

where R³, R⁴, R⁵ and R⁶ do not simultaneously represent hydrogen.

4. Process for preparing methylthiophenecarboxanilides of the formula (I) according to Claim 1, characterized in that

a) methylthiophenecarbonyl halides of the formula (II)

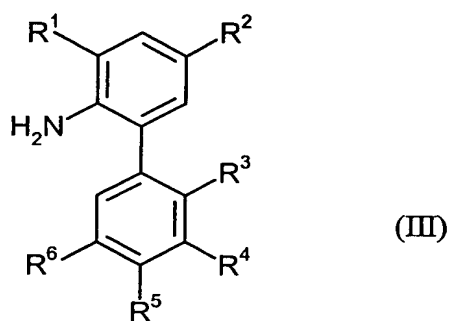


in which

X¹ represents halogen,

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are reacted with an aniline derivative of the formula (III)



in which

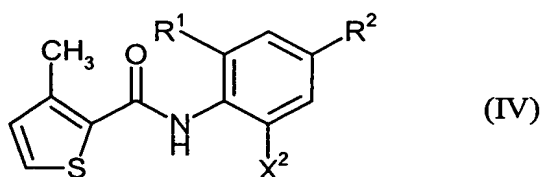
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R¹, R², R³, R⁴, R⁵ and R⁶ are as defined in Claim 1,

if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent, or

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b) methylthiophenecarboxhalogenanilides of the formula (IV)



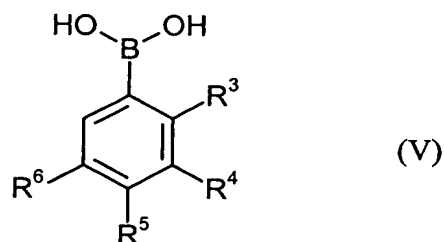
in which

R¹ and R² are as defined in Claim 1 and

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X² represents bromine or iodine,

are reacted with a boronic acid of the formula (V)

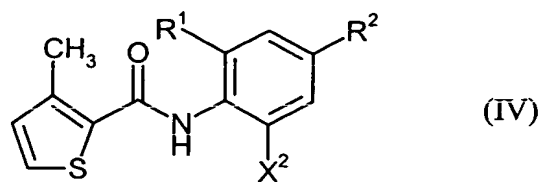


in which

5 R^3 , R^4 , R^5 and R^6 are as defined in Claim 1,

in the presence of a catalyst, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent.

- 10 5. Composition for controlling unwanted micro-organisms, characterized in that they comprise at least one methylthiophenecarboxanilide of the formula (I) according to Claim 1, in addition to extenders and/or surfactants.
- 15 6. Use of methylthiophenecarboxanilides of the formula (I) according to Claim 1 for controlling unwanted micro-organisms.
- 20 7. Method for controlling unwanted micro-organisms, characterized in that methylthiophenecarboxanilides of the formula (I) according to Claim 1 are applied to the micro-organisms and/or their habitat.
- 25 8. Method for preparing compositions for controlling unwanted micro-organisms, characterized in that methylthiophenecarboxanilides of the formula (I) according to Claim 1 are mixed with extenders and/or surfactants.
9. Methylthiophenecarboxhaloanilides of the formula (IV)



in which

R¹ and R² are as defined in Claim 1 and

X² represents bromine or iodine.